



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant(s): Wagner, et al.

Application No.: 09/977,918

Filed: 10/26/2001

Title: ENERGY ACTIVATED
ELECTROGRAPHIC PRINTING
PROCESS

Attorney Docket No.: 321.084-1

Group Art Unit: 1756

Examiner: Goodrow, John

TO: Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

In response to Official Action dated September 23, 2003:

REMARKS

The Examiner has requested that Applicants "point out in their response any distinction between an electrographic printer and a computer driven printer as taught by Thompson et al." It is believed that the Examiner is referring to *Thompson et al.*, U.S. Patent No. 6,447,629. An electrostatic printer is "a printer that uses an electric charge to deposit toner on paper."¹ An electrostatic printer may be a species of computer driven printer. An example of an electrostatic printer is a laser printer that is driven by a computer. A laser printer that is driven by a computer may be used to practice the processes described in the Application.

¹ Source: www.thefreedictionary.com

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In response to the Examiner's request, the following application serial numbers are applications of Sawgrass Technologies, Inc. (f/k/a Sawgrass Systems, Inc.) that pertain to electrographic printing: 09/978,190 (now U.S. Patent No. 6,673,503 B2), 09/977,918, 10/085,359 and 10/638,810.

Claims 1 through 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thompson et al. in view of *De Vries, et al.*, (believed to be U.S. Patent No. 4,058,644; the Office Action is not specific as to the number), and *Wagner et al.*, U.S. Patent No. 6,105,502.

Claim 1 is allowable over the prior art of record because, *inter alia*, it requires a reactive fusing agent that liquefies upon the application of energy and accelerates the reaction between the active hydrogen and the compound that reacts with active hydrogen. The cited prior art does not teach a reactive fusing agent that liquefies upon the application of energy and accelerates the reaction between the active hydrogen and the compound that reacts with active hydrogen.

Claims 2 through 8 are allowable over the prior art of record because, *inter alia*, they depend from Claim 1 as an allowable base claim.

Claim 9 is allowable over the prior art of record because, *inter alia*, it requires a polyester resin, wherein the polyester resin softens upon printing and binds the toner to the first substrate, and the polyester resin comprises active hydrogen that reacts with the compound that reacts with active hydrogen.

Claims 10, 11 and 12 are allowable because, *inter alia*, they depend from allowable base Claim 9.

Claim 13 requires printing a sublimation dye over a printed toner. The toner is a reactive toner. Heat is applied to the sublimation dye, and the sublimation dye has an affinity for the toner and bonds to the toner. The prior art does not teach this process. *Thompson et al.* and *Wagner et al.* teach the use of sublimation dyes within a reactive ink formulation, wherein the sublimation dyes act as a colorant. Neither of these references teaches printing a reactive toner on a substrate, and subsequently printing an image by means of an ink comprising of a sublimation dye over the reactive toner. Further, neither of these references teaches the application of heat to the sublimation dye so that the dye bonds to the toner.

De Vries, et al teach a dry release sublimation transfer having a temporary backing sheet, a sublimation transfer design layer comprising sublimation transfer inks disposed on the design layer, and a polymeric layer disposed in contact with the sublimation transfer design layer. The polymeric layer is not printed on the substrate; rather the polymeric layer is coated on the substrate by conventional wet coating processes, which cannot be characterized as printing. *De Vries, et al* do not teach a process wherein an electrographic printer prints toner on a substrate, and sublimation dye is printed over the toner, and the dye bonds to the toner upon the application of heat, as required by Claim 13.

Claims 14 is allowable because, *inter alia*, it depends from allowable base Claim 13.

Claim 15 is similar to Claim 13, except that the toner is printed onto the substrate over the printed image that is formed of sublimation dye. As with Claim 13, upon heating, the dye binds to the toner. Again, *Thompson et al.* and *Wagner et*


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al. teach the use of sublimation dyes within a reactive ink formulation, wherein the sublimation dyes act as a colorant. Neither of these references teaches printing an image on the substrate using sublimation dyes, and subsequently printing reactive toner over the image. Further, neither of these references teaches the application of heat to the sublimation dye so that the dye bonds to the toner. *De Vries, et al* do not teach a process wherein an electrographic printer prints sublimation dye to form an image on a substrate, and subsequently, toner is printed over the image, wherein the sublimation dye bonds to the printed toner upon the application of heat, as required by Claim 15.

It is respectfully submitted that Claims 1 - 15 are in condition for allowance. Review and allowance is earnestly solicited.

Respectfully submitted,



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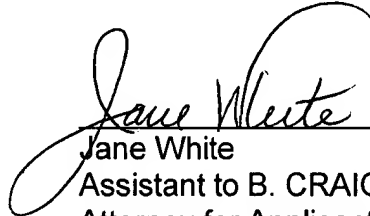
January 23, 2004



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I hereby certify that this Response to the Official Action dated September 23, 2003, Request for Extension of Time Under 37 C.F.R. § 1.136, Check Number 2339 for \$55.00, and Postcard, are being deposited with the United States Postal Service, with sufficient postage attached thereto, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 23rd day of January 2004.



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